AMENDMENT

IN THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application. Where claims have been amended and/or cancelled, such amendments and/or cancellations are done without prejudice and/or waiver and/or disclaimer, and Assignee reserves the right to claim this subject matter in a continuing application:

1. - 8. (Cancelled)

9. (Currently Amended) An apparatus comprising:

high-bit mapping means responsive to a digital signal for mapping a high-bit portion of said digital signal to provide a high-bit signal;

low-bit calculation means responsive to said digital signal for determining a low-bit portion of said digital signal;

combination means for combining said high-but signal with said low-bit signal to provide an output signal to a controller, wherein said low-bit calculation means further comprises:

zone-factor mapping means for providing a factor based, at least in part, on a mapping of a portion of said high-bit portion with a slope table; and

calculation means for multiplying said factor with said low-bit portion The apparatus of claim 8, wherein said slope table comprises a plurality of slope values that are calculated by differentiating a gamma curve stored in said high-bit mapping means.

10. (Currently Amended) An apparatus comprising:

high-bit mapping means responsive to a digital signal for mapping a high-bit portion of said digital signal to provide a high-bit signal;

low-bit calculation means responsive to said digital signal for determining a low-bit portion of said digital signal; and

_____ combination means for combining said high-but signal with said low-bit signal to provide an output signal to a controller, wherein said low-bit calculation means further comprises:

_____ zone-factor mapping means for determining a factor based, at least in part, on mapping of a portion of said high-bit portion with a slope table; and

_____ calculation means for multiplying said factor with said low-bit portion, wherein said slope table comprises a plurality of slope values that are calculated by differentiating a gamma curve stored in said high-bit mapping means ~~The apparatus of claim 9~~, wherein said gamma curve is divided into a plurality of differential zones ~~for calculating~~ associated with said slope values.

11.-12. (Cancelled)

13. (Currently Amended) An apparatus, comprising:

_____ a scanner to provide a digital signal;

_____ high-bit mapping means responsive to said digital signal for mapping a high-bit portion of said digital signal to provide a high-bit signal;

_____ low-bit calculation means responsive to said digital signal for determining a low-bit portion of said digital signal; and

_____ combination means for combining said high-bit signal with said low-bit signal to provide an output signal to a controller ~~The apparatus of claim 7, wherein said apparatus comprises a scanner~~.

14. -17. (Cancelled)

18. (Currently Amended) A memory device for use in an imaging system, said memory device having stored thereon instructions that, when executed, results in:

_____ mapping a high-bit portion of a digital signal having a high-bit portion and a low-bit portion to a curve table to provide a high-bit signal;

_____ mapping at least a portion of said high-bit portion to a slope table to provide a factor;

_____ determining a low-bit signal based at least in part on said low-bit portion and said factor;

combining said high-bit signal with said low-bit signal to provide an output signal, wherein said mapping at least a portion of said high-bit portion further comprises:

accessing a curve divided into a plurality of differential zones, said curve related to a plurality of mapping values in said curve table;

generating a plurality of slope values according to said differential zones; and

storing said slope values in said slope table for mapping a portion of said high-bit portion ~~The memory device according to claim 17~~, wherein said curve comprises a gamma curve for gamma correction of said imaging system.

19. (Cancelled)